

**Patent claims:**

- 1) A method for the production of a pigment masterbatch by extrusion, wherein
  - 5 a) a thermoplastic polymer in granular or powder form is metered continuously into a twin-screw extruder;
  - b) the polymer metered in is melted in the extruder;
  - c) a pumpable pigment press cake containing pigment, water and/or organic solvent is metered continuously into the molten polymer through an inlet port of the extruder under elevated pressure, the pressure being sufficiently high that the boiling point of the water and/or organic solvent is higher than the internal temperature of the extruder in the region of this inlet port;
  - 10 d) optionally a flow improver is added;
  - e) the pigment is dispersed into the molten polymer from the press cake by the action of shear forces;
  - 15 f) the water and/or organic solvent are removed through at least one outlet port of the extruder, under elevated pressure, the pressure being sufficiently high that the boiling point of the water and/or organic solvent is higher than the internal temperature of the extruder in the region of this outlet port;
  - 20 g) the pigmented polymer melt is discharged from the extruder, cooled and granulated.
- 2) The method as claimed in claim 1, wherein a corotating twin-screw extruder is used.
  - 25 3) The method as claimed in claim 1 or 2, wherein the pigment press cake contains from 5 to 35% by weight of pigment.
  - 30 4) The method as claimed in at least one of claims 1 to 3, wherein the outlet port(s) in f) is/are combined with one or more twin-screw locks.

- 5) The method as claimed in at least one of claims 1 to 4, wherein the thermoplastic polymer is a polyethylene, polypropylene, polystyrene or ethylene vinyl acetate.
- 5 6) The method as claimed in at least one of claims 1 to 5, wherein the pigment is an organic pigment from the group consisting of the monoazo pigments, disazo pigments, disazo condensation pigments, laked azo pigments, triphenylmethane pigments, thioindigo pigments, thiazineindigo pigments, perylene pigments, perinone pigments, anthranthrone pigments, diketopyrrolopyrrole pigments, 10 dioxazine pigments, quinacridone pigments, phthalocyanine pigments, isoindolinone pigments, isoindoline pigments, benzimidazolone pigments, naphthol pigments or quinophthalone pigments.
- 15 7) The method as claimed in at least one of claims 1 to 6, wherein the flow improver is a surface-active substance.
- 8) The method as claimed in at least one of claims 1 to 7, wherein the pigment masterbatch contains from 10 to 70% by weight of pigment and from 30 to 90% by weight of thermoplastic polymer.
- 20 9) The method as claimed in at least one of claims 1 to 8, wherein the heat of the water and/or solvent removed via the outlet ports is used for heating the press cake to be metered.
- 25 10) The method as claimed in at least one of claims 1 to 9, wherein the removal of water and/or solvent in step f) is effected by means of fully automatic regulation of the pressure difference, preferably by a control valve.